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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/050,182	03/26/98	OHNUMA H	07977/242001

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IM22/0403

EXAMINER	
KUNEMUND, R	

ART UNIT	PAPER NUMBER
1765	18

DATE MAILED: 04/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary	Application No. 09/050,182	Applicant(s) Ohnuma et al
	Examiner Robert Kunemund	Group Art Unit 1765

☒ Responsive to communication(s) filed on *Feb 6, 2001*.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-81* is/are pending in the application.

Of the above, claim(s) *60-74* is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-59 and 75-81* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

The Rejections

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 to 59 and 76 to 81 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 5,700,333. Although the conflicting claims are not identical, they are not patentably distinct from

each other because the difference is the device formed and heating. However, in the absence of unobvious results, it would have been obvious to one of ordinary skill in the art to determine through routine experimentation the optimum, operable device formed as the instant claims form any device and heating in order to decrease heating time.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 to 16, 76 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al (5,700,333)..

The Yamazaki et al reference teaches a method of device formation. On a substrate, a layer of amorphous silicon is deposited and then catalysts are placed in contact with the silicon. The silicon is heated in order to crystallize the silicon. Then a gettering agent is added to the

silicon layer. Then the structure is reheated to remove the catalyst. The second heating step is around 550°c, note entire reference. The sole difference between the instant claims and the prior art is the device formed. However, in the absence of unobvious results, it would have been obvious to one of ordinary skill in the art to determine through routine experimentation the optimum, operable types of devices made in the Yamazaki et al reference in order to create devices with low impurity silicon layer.

Claims 17 to 59, 75 and 78 to 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al (5,700,333) in view of Zhang et al (5,569,936)

The Yamazaki et al reference is relied on for the same reasons as stated, supra, and differs from the instant claims in the use of lasers to crystallize the silicon. However, the Zhang et al reference teaches catalyst crystallization of amorphous silicon by using lasers, note figures. It would have been obvious to one of ordinary skill in the art to modify the Yamazaki et al reference by the teachings of the Zhang et al reference to use lasers in order to decrease the time of crystallization.

Response to Applicants' Arguments

Applicant's arguments filed February 6, 2001 have been fully considered but they are not persuasive.

Applicants' argument concerning the gettering in view of the references is noted. However, the Yamazaki reference claims gettering a region or layer claim 1, this means that an area or patterning of the gettering metal is found in the reference. If there is a claimed limtiation

of a layer and a region, the region cannot be considered an entire layer. Also, at col 6 of the Yamazaki et al reference, it is taught to remove the areas, not layer, where the catalyst has been gettered to the metal. This removal would inherently leave islands. Therefore, the reference does in fact render the instantly filed claims obvious to one of ordinary skill in the art.

Applicants' argument concerning the Zhang et al reference is noted. However, the Zhang et al reference is merely relied on to show that the use of lasers to crystallize is well known and conventional in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Kunemund whose telephone number is (703) 308-1091. The examiner can normally be reached on Monday through Friday from 7:00 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech, can be reached on (703) 308-3836. The fax phone number for this Group is (703) 305-6357.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

ROBERT KUNEMUND
PRIMARY EXAMINER

RMK

March 30, 2001